

REMARKS

At the outset, the Examiner is thanked for the thorough review and consideration of the pending application. The final Office Action dated July 30, 2007 has been received and its contents carefully reviewed. Applicant appreciates the indication by the Examiner that claims 1-4 are allowable.

Claims 5 and 23-25 are rejected by the Examiner. Claims 1-4 have been allowed. Claim 23 has been cancelled. Claims 1-22, 24 and 25 are currently pending in this application with claims 6-22 having been withdrawn.

In the Office Action, claims 5 and 23 is rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 4,969,718 to Noguchi et al. (hereinafter “Noguchi”). Claims 24 and 25 are rejected as being unpatentable over Noguchi in view of U.S. Patent No. 6,327,008 to Fujiyoshi (hereinafter “Fujiyoshi”).

The rejection of claims 5 and 23 under 35 U.S.C. § 102(e) as being anticipated by Noguchi is respectfully traversed and reconsideration is requested. Applicant submits that Noguchi does not disclose each and every element of the claims.

Applicant thanks the Examiner for the indication of allowable subject matter in claims 1-4. In light of this indication, claim 5 has been amended to include “the second pixel is horizontally adjacent to the first pixel”. Therefore, claim 5 recites a liquid crystal display device having a combination of features including “the second pixel is horizontally adjacent to the first pixel, wherein a parasitic capacitance between the second pixel electrode and the second data line is at least three times greater than a parasitic capacitance between the first pixel electrode and the first data line.”

Applicant submits that Noguchi does not teach “the second pixel is horizontally adjacent to the first pixel, wherein a parasitic capacitance between the second pixel electrode and the second data line is at least three times greater than a parasitic capacitance between the first pixel electrode and the first data line” as recited in claim 5. Applicant notes Noguchi does not explicitly disclose the second pixel is horizontally adjacent to the first pixel. Additionally, Applicant notes Noguchi does not explicitly disclose the values of parasitic capacitance between pixels and data lines, and the Examiner relies on an observation that “the distance between the second pixel and the second data line is shorter than that between the first pixel and the first data

line.” Applicant submits that because a conductive pixel material would not have the same permittivity (ϵ) as the insulating dielectric material separating the second pixel and the second data line, the respective parasitic capacitance between the second pixel and the second data line of Noguchi cannot be established to be “at least three times greater than a parasitic capacitance between the first pixel electrode and the first data line” as recited in claim 5 by merely comparing the respective distances between the data line and pixel electrode as suggested by the Examiner.

The Examiner responds in the “Response to Arguments” section that because the permittivity is proportional to L^{-3} (“ $\epsilon \sim L^{-3}$ ”) that the parasitic capacitance between the second electrode and the second data line would be at least 3 times greater than that between the first pixel and the data line.

Applicant respectfully disagrees with the Examiner’s conclusion regarding the relationship between permittivity and spacing between the data line and the pixel electrode. The permittivity as used to calculate the capacitance is a function of the composition of the material between the electrodes and is independent of the spacing between electrodes of a capacitance. For example, a capacitor having a conductive material separating the electrodes would not have the same capacitance as a capacitor having insulating material separating the electrodes even if the spacing between electrodes were identical. Applicant submits that there is no disclosure in the cited references including Noguchi and Fujiyoshi of the relative premittivity of the pixel electrode and the non conductive areas of the substrate separating the pixel and data electrodes, and that accordingly the observation by the Examiner that “the distance between the second pixel and the second data line is shorter than that between the first pixel and the first data line” is not sufficient to conclude that “a parasitic capacitance between the second pixel electrode and the second data line is at least three times greater than a parasitic capacitance between the first pixel electrode and the first data line.” Accordingly, Applicant submits that the Examiner has failed present a *prima facie* case that claim 5 is anticipated by Noguchi. Applicant further notes that the Bartley reference cited on the Form 892 provided with the Office Action indicates in tables 1 and 2 using dimensional analysis that permittivity has units of L^{-3} and not that the value of the permittivity for different materials is proportional to L^{-3} and accordingly submits that the reference does not support the Examiner’s contention.

The rejection of 24 and 25 rejected as being unpatentable over Noguchi in view of Fujiyoshi is respectfully traversed and reconsideration is requested.

Claims 24 and 25 each depends from claim 5, and each includes by reference all of the limitations of claim 5.

As Applicant has discussed above, claim 5 is not anticipated by Noguchi. In rejecting claims 24 and 25, the Examiner cites Fujiyoshi as teaching features explicitly recited in claims 24 and 25. Applicant does not reach the Examiner's conclusions regarding the teachings of Fujiyoshi. Applicant submits that Fujiyoshi does not cure the deficiencies in the teachings of Noguchi with respect to claim 5 as identified above, and that Noguchi and Fujiyoshi, analyzed singly or in combination do not teach the features of claim 5. Accordingly Applicant submits that claim 5, and claims 24 and 25 are each allowable over Noguchi and Fujiyoshi.

Applicant believes that the application is in condition for allowance and early, favorable action is respectfully solicited.

If for any reason the Examiner finds the application other than in condition for allowance, the Examiner is requested to call the undersigned attorney at (202) 496-7500 to discuss the steps necessary for placing the application in condition for allowance. All correspondence should continue to be sent to the below-listed address.

If these papers are not considered timely filed by the Patent and Trademark Office, then a petition is hereby made under 37 C.F.R. § 1.136, and any additional fees required under 37 C.F.R. § 1.136 for any necessary extension of time, or any other fees required to complete the filing of this response, may be charged to Deposit Account No. 50-0911. Please credit any overpayment to deposit Account No. 50-0911. *A duplicate copy of this sheet is enclosed.*

Respectfully submitted,

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